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EXAMINER

MACE, BRAD THOMAS

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2663

DATE MAILED: 08/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/766,562

Applicant(s)

DUCLOS, MICHAEL B.

Examiner

Brad T. Mace

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-14, 16-20, 22-30, 32-40, 42-49, 51 and 52 is/are rejected.
- 7) ☒ Claim(s) 8, 15, 21, 31, 41 and 50 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: "fifth" should be "sixth" on line 22 of pg. 5. Appropriate correction is required.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: reference 916 of Figure 7. Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to because line 21 of pg. 24 in the specification states "Blocks 1704-1710 correspond to blocks 1602-1608", however, references 1705, 1707, 1709, 1603, 1605, and 1607 do not exist. A similar situation applies to line 4 of pg. 25. A similar situation applies to line 15 of pg. 26. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of

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the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claims 1, 9-10, 23-26, and 32-33 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,169,727 (Song).

Regarding claims 1, 23-26:

6. Song discloses a system and method (thus capable for means in a computer readable medium) for communicating an event status across a data channel (col. 3, lines 60-66, where explicit forward congestion notification (event status) is communicated across communication devices connected (through data channels) to an ATM network, hence ATM channels). Song discloses a data path to provide connectivity for a plurality of communication channels (see Figure 3, since multiple interfaces (UNI – user network interfaces, channels) provide a number of connections in the ATM network (col. 4, lines 58-60) and multiple interfaces can be supported by an ATM device as in Figure 3, thus together the multiple interfaces constitute a data path) using data transport protocols (ATM switching system indicates the use of the ATM protocol, col. 4, line 36). Song discloses an originating device (ATM device, since it is part of an ATM network, col. 3, line 62) coupled to a first location on the data path (see Figure 1, reference 10), the originating device operable to set an event status indicator in a control portion of a data unit (col. 3, lines 60-62 states that the forward congestion notification is usable in communication devices of an ATM network, thus the congestion notifying device (col. 5, 36-40) can be used in the originating device, where the congestion notifying device sets an EFCI (explicit forward congestion notification) bit (event status indicator identifying an event status (congestion)) (col. 5, lines 36-52) in the ATM cell header portion (which contains

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control information, thus control portion) of a data unit (ATM cell) (col. 6, lines 10-11), the originating device operable to communicate a data signal as one or more data units (ATM cells) on a data channel (see Figure 6, where the congestion notifying device can be used in the originating device as indicate above, and as shown in Figure 6, the EFCI bit has been set in multiple ATM cells on a data channel, therefore communicating (and converting) the data signal at the originating device (congestion indication signal received from the buffer 66 in Figure 6, col. 6, lines 34-35) as one or more data units on a data channel), the data channel being one of the plurality of communication channels supported on the data path (col. 6, lines 21-31, since the congestion indication control signal is used for controlling the congestion by connections, thus as shown in Figure 2, multiple connections between devices can exist, therefore a particular data channel on which congestion notification is used is being one of the plurality of communication channels supported on the data path (the entire group of communication channels between a device)). Song discloses a receiving device (ATM device, since it is part of an ATM network, col. 3, line 62) coupled to a second location on the data path (see Figure 1, reference 18), the receiving device operable to detect the event status indicator in the control portion of the data unit (col. 3, lines 60-62 states that the forward congestion notification is usable in communication devices of an ATM network, thus the congestion notifying device (col. 5, 36-40) can be used in the receiving device, where the EFCI bit set detector 60 of Figure 6 can detect the EFCI bit set position (event status indicator) in the ATM cell header (which contains control information, thus

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control portion), col. 6, lines 4-11), the receiving device operable to convert the one or more data units communicated on the data channel to a recovered data signal (since the receiving device receives the one or more ATM cells having the EFCI bit set, it is therefore notified of the buffer congestion (data signal resulting from detecting the EFCI bit of the ATM cell), col. 4, lines 6-14), the data path linking the originating device to the receiving device (see Figure 1, references 10, 18, and there-between), the event status indicator identifying an event status (col. 4, lines 8-11, where the EFCI bits identify congestion).

Regarding claims 9, 32:

7. Song further discloses wherein the originating device (see Figure 1, reference 10) (and where the congestion notifying device of Figure 6 can be used in any communications device, col. 3, lines 60-62) includes (in the congestion notifying device) an event status injector (EFCI bit setting part, see Figure 6, reference 70) operable to set the event status indicator (EFCI bit, see Figure 6, where the EFCI bit is part of the data output from the EFCI bit setting part) in the control portion of the data unit (the EFCI bit (event status indicator) is set in the ATM cell header (which contains control information, thus control portion), col. 6, lines 4-11) and wherein the receiving device (see Figure 1, reference 18) includes an event status detector operable to detect the event status in the control portion of the data unit (col. 3, lines 60-62 states that the forward congestion notification is usable in communication devices of an ATM network, thus the congestion notifying device (col. 5, lines 36-40) can be used in the receiving device, where the EFCI bit set detector 60 of Figure 6 can detect the

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EFCI bit set position (event status indicator) in the ATM cell header (which contains control information, thus control portion), col. 6, lines 4-11).

Regarding claims 10, 33:

8. Song further discloses wherein the event (congestion) status is of a buffer (FIFO) overflow condition (col. 4, lines 25-28).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2-7, 11-14, 16-20, 22, 27-30, 34-40, 42-49, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,169,727 (Song) in view of U.S. Patent No. 6,707,819 (Fraser et al.).

Regarding claims 2-6, 27-29:

11. Song discloses substantially all the claimed invention as specified above, however, Song does not disclose expressly wherein the originating device comprises an encapsulation module operative to convert the data signal into the one more data units, the receiving device comprises a decapsulation module operative to convert the one or more data units into the recovered data signal, and that the data signal and the recovered data signal are constant bit rate signals which include constant bit rate data and wherein the ATM encapsulation

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module includes an ATM AAL1 encapsulation block and the ATM decapsulation module includes an ATM AAL1 decapsulation block.

Fraser et al. discloses the encapsulation of real time data (col. 3, 18-31) through the use of an encapsulation unit and the decapsulation of data through the use of a de-encapsulating unit (col. 4, lines 46-55). Encapsulation is in accordance with ATM AAL5, where ATM AAL1 encapsulation format can be used in place of ATM AAL5, col. 4, lines 18-22, hence the use of ATM AAL1 encapsulation and decapsulation blocks in the encapsulation and decapsulation units. Hence the data signals are converted into ATM cells by an ATM AAL1 encapsulation block. It is known that AAL1 corresponds to CBR or constant bit rate data.

A person of ordinary skill in the art would have been motivated to employ Fraser et al. in Song in order to obtain an ATM system utilizing ATM AAL1 for constant bit rate transfer of data (and thus the constant bit rate of data signals) between network devices (and within network devices), and to use an ATM AAL1 encapsulation block in an encapsulation unit and an ATM AAL1 decapsulation block in a decapsulation unit so that the constant bit rate transfer of data (and constant bit rate of data signals) can occur when the conversion of the data signal to one or more data units takes place (or when the conversion of the data units to data signals takes place), thus encapsulating the congestion (event status) information/signal into ATM cells so that it can be sent across the network to a receiving device where it can be decapsulated and therefore informing the receiving device of the congestion. At the time the invention was made,

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therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Fraser et al. with Song (collectively Song-Fraser et al.) in order to obtain the inventions specified in claims 1 and 2, in claims 1 and 3, in claims 1 and 4, in claims 1 and 5, and in claims 1, 5, and 6. The suggestion/motivation to do so would have been to obtain an ATM system that can support the encapsulation and decapsulation of data in order to inform a receiving device of congestion (event status) at a separate location from a sending device on the ATM network, where a constant bit rate transfer of data (and constant bit rate of data signals) exists so that each network device can easily manage (and process) the transfer of ATM information through the ATM network from the originating device to the receiving device.

Regarding claims 7, 30:

12. Song further discloses wherein the control portion is an ATM (SAR PDU) header (the EFCI bit set position of the congestion notification (event status) is placed in the ATM cell header portion, which contains control information, thus control portion; col. 6, lines 10-11).

Regarding claims 11, 34-37, 42:

13. Song discloses in an ATM device (see Figure 1, reference 10) operable to transmit ATM cells via an ATM connection (see Figure 1, where it is an ATM system wherein ATM devices have ATM connections to each other, thus incorporation the passing of ATM cells) to a receiving ATM device (see Figure 1, reference 18), an apparatus and method (thus capable for means in a computer readable medium) for communicating an event status (congestion notifying

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device, see Figure 6, for use in communications devices of an ATM network, thus in the transmitting device, col. 5, lines 36-40). Song discloses an event status sensor/detector operable to determine an event status (see Figure 6, reference 64, and col. 5, lines 41-53, where the EFCI bit set control unit (event status sensor/detector) detects the CIS signal when buffer overflow occurs (notifying EFCI control unit of an event status)), an event status injector (EFCI bit setting part, see Figure 6, reference 70) operable to set the event status indicator (EFCI bit, see Figure 6, where the EFCI bit is part of the data output from the EFCI bit setting part) in the control portion of the data unit (the EFCI bit (event status indicator) is set in the ATM cell header (which contains control information, thus control portion), col. 6, lines 4-11), the event status indicator (EFCI bit) signaling the event status (see Figure 6, where EFCI bit in the ATM cells leaving the EFCI bit setting part (converting a data signal into the ATM cells) indicates congestion), a transmitter for communicating the ATM cell onto the ATM connection (see Figure 6, reference 70, where the ATM cells are outputted onto the ATM connection (hence being transmitted by a transmitter)). However, Song does not disclose expressly an encapsulation module operative to convert a data signal into one or more ATM cells.

Fraser et al. discloses the encapsulation of real time data (col. 3, 18-31) through the use of an encapsulation unit (encapsulation module) (col. 4, lines 46-55).

A person of ordinary skill in the art would have been motivated to employ Fraser et al. in Song in order to obtain an ATM system utilizing an encapsulating

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module for encapsulating the congestion (event status) information/signal into ATM cells so that it can be sent across the network to a receiving device. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Fraser et al. with Song (collectively Song-Fraser et al.) in order to obtain the invention specified in claim 11. The suggestion/motivation to do so would have been to obtain an ATM transmitter that can support the encapsulation of data in order to inform a receiving device of congestion (event status) at a separate location from a sending device on the ATM network.

Regarding claims 12-13, 38-39:

14. Song discloses substantially all the claimed invention as specified above, however, Song does not disclose expressly wherein the data signal is a constant bit rate signal and wherein the encapsulation module includes an ATM AAL1 encapsulation block.

Fraser et al. discloses the encapsulation of real time data (col. 3, 18-31) through the use of an encapsulation unit (col. 4, lines 46-55) (Encapsulation is in accordance with ATM AAL5, where ATM AAL1 encapsulation format can be used in place of ATM AAL5, col. 4, lines 18-22, hence the use of an ATM AAL1 encapsulation block in the encapsulation unit). It is known that AAL1 corresponds to CBR or constant bit rate data.

A person of ordinary skill in the art would have been motivated to employ Fraser et al. in Song in order to obtain an ATM system utilizing ATM AAL1 for constant bit rate transfer of data (and thus the constant bit rate of data signals)

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between network devices (and within network devices), and to use an ATM AAL1 encapsulation block in an encapsulation unit so that the constant bit rate transfer of data (and constant bit rate of data signals) can occur when the conversion of the data signal to one or more data units takes place. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Fraser et al. with Song (collectively Song-Fraser et al.) in order to obtain the inventions specified in claims 11 and 12, and in claims 11, 12, and 13. The suggestion/motivation to do so would have been to obtain an ATM system that can support the encapsulation of data in order to inform a receiving device of congestion (event status) at a separate location from a sending device on the ATM network, where a constant bit rate transfer of data (and constant bit rate of data signals) exists so that each network device can easily manage (and process) the transfer of ATM information through the ATM network from the originating device to the receiving device.

Regarding claims 14, 40:

15. Song further discloses wherein the control portion is an ATM (SAR PDU) header (the EFCI bit set position of the congestion notification (event status) is placed in the ATM cell header portion, which contains control information, thus control portion, col. 6, lines 10-11).

Regarding claims 16, 43:

16. Song further discloses wherein the event (congestion) status is of a buffer (FIFO) overflow condition (col. 4, lines 25-28).

Regarding claims 17, 44-46:

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17. Song discloses in an ATM device (see Figure 1, reference 18) operable to receive ATM cells via an ATM connection (see Figure 1, where it is an ATM system wherein ATM devices have ATM connections to each other, thus incorporation the passing of ATM cells) from an originating ATM device (see Figure 1, reference 10), an apparatus and method (thus capable for means in a computer readable medium) for determining an event status (congestion notifying device, see Figure 6, for use in communications devices of an ATM network, thus in the receiving device, col. 5, lines 36-40). Song discloses a receiver for accepting an ATM cell from the ATM connection (see Figure 6, where ATM cells are input into the EFCI bit setting part from an ATM connection, hence through a receiver). Song discloses an event status sensor/detector operable to detect the event status (see Figure 6, reference 64, and col. 5, lines 41-53, where the EFCI bit set control unit (event status sensor/detector) is operable to detect the EFCI bit set position (event status indicator) in the ATM cell header (which contains control information, thus control portion), col. 6, lines 4-11), and an event status decoder operable to decode the event status indicator to determine an event status (since the receiving device receives the one or more ATM cells having the EFCI bit set, it is therefore notified (by decoding/reading the EFCI bit) of the buffer congestion (data signal resulting from detecting the EFCI bit of the ATM cell), col. 4, lines 6-14). Song further discloses in an ATM device (see Figure 1, reference 10) operable to transmit ATM cells via an ATM connection (see Figure 1, where it is an ATM system wherein ATM devices have ATM connections to each other, thus incorporation the passing of ATM cells) to a receiving ATM

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device (see Figure 1, reference 18), the ATM cell including an event status indicator (EFCI bit) in a control portion of the ATM cell (EFCI bit is set in the ATM cell header, which contains control information, thus control portion, col. 6, lines 4-11), the event status indicator (EFCI bit) set by the originating ATM device (see Figure 1, reference 10, where the congestion notifying device can be placed in the originating device, therefore indicating congestion and sending ATM cells to a receiving device) and indicating an event status (EFCI bit indicating congestion). However, Song does not disclose expressly a decapsulation module operative to convert the ATM cell received from the originating ATM device on the ATM connection into a recovered signal.

Fraser et al. discloses the encapsulation of real time data (col. 3, 18-31) through the use of an encapsulation unit (encapsulation module) and decapsulation through the use of a decapsulation unit (decapsulation module) (col. 4, lines 46-55).

A person of ordinary skill in the art would have been motivated to employ Fraser et al. in Song in order to obtain an ATM system utilizing a decapsulation module for decapsulating the congestion (event status) information/signal from ATM cells so that it can be decoded and understood by the receiving device. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Fraser et al. with Song (collectively Song-Fraser et al.) in order to obtain the invention specified in claim 17. The suggestion/motivation to do so would have been to obtain an ATM receiver that can support the decapsulation of data in order to

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determine if there is congestion, by decoding the information present in an ATM cell sent from a separate location on the ATM network.

Regarding claims 18-19, 47-48, 51:

18. Song discloses substantially all the claimed invention as specified above, however, Song does not disclose expressly wherein the data signal is a constant bit rate signal and wherein the decapsulation module includes an ATM AAL1 decapsulation block.

Fraser et al. discloses the encapsulation of real time data (col. 3, 18-31) through the use of an encapsulation unit and decapsulation unit (col. 4, lines 46-55) (Encapsulation is in accordance with ATM AAL5, where ATM AAL1 encapsulation format can be used in place of ATM AAL5, col. 4, lines 18-22, hence the use of an ATM AAL1 decapsulation block in the decapsulation unit). It is known that AAL1 corresponds to CBR or constant bit rate data.

A person of ordinary skill in the art would have been motivated to employ Fraser et al. in Song in order to obtain an ATM system utilizing ATM AAL1 for constant bit rate transfer of data (and thus the constant bit rate of data signals) between network devices (and within network devices), and to use an ATM AAL1 decapsulation block in an decapsulation unit so that the constant bit rate transfer of data (and constant bit rate of data signals) can occur when the conversion of data units to one or more data signals takes place. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Fraser et al. with Song (collectively Song-Fraser et al.) in order to obtain the inventions specified in claims 17 and 18,

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and in claims 17, 18, and 19. The suggestion/motivation to do so would have been to obtain an ATM system that can support the decapsulation of data in order to inform a receiving device of congestion (event status) that is a separate location from a sending device on the ATM network, where a constant bit rate transfer of data (and constant bit rate of data signals) exists so that each network device can easily manage (and process) the transfer of ATM information through the ATM network from the originating device to the receiving device.

Regarding claims 20, 49:

19. Song further discloses wherein the control portion is an ATM (SAR PDU) header (the EFCI bit set position of the congestion notification (event status) is placed in the ATM cell header portion, which contains control information, thus control portion, col. 6, lines 10-11).

Regarding claims 22, 52:

20. Song further discloses wherein the event (congestion) status is of a buffer (FIFO) overflow condition (col. 4, lines 25-28).

Allowable Subject Matter

21. Claims 8, 15, 21, 31, 41, and 50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

*Yamato et al. discloses a method and apparatus for controlling

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congestion in a communication network

*Ikeda discloses ATM cell rate control with transmission priority given to

control cells for quick response to network congestion

*Simpson et al. discloses congestion avoidance in an ATM switch

Ljungberg et al. discloses a flow control system for packet switches

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brad T. Mace whose telephone number is (703)-306-5454. The examiner can normally be reached on Monday -Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (703)-305-4798. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

btm

Brad T. Mace
Examiner
Art Unit 2663



RICKY NGO
PRIMARY EXAMINER

Art Unit: 2663

btm

August 12, 2004